

54  
CLAIMS

1. A muscle strength increasing system used for developing  
5 muscles of at least one of the limbs of a wearer while restricting  
the blood flow therethrough by means of applying a predetermined  
compression pressure to said limb, the muscle strength increasing  
system comprising a muscle strength increasing device having a  
compressing member for tightening and compressing muscles and a  
10 compression pressure controller for controlling said compression  
pressure,

said compression pressure controller being for controlling  
said compression pressure so that it does not exceed a preset  
critical compression pressure.

15

2. The muscle strength increasing system as claimed in Claim  
1, wherein said muscle strength increasing device comprises a  
hollow tight fitting band having a tube therein to which the air  
is to be supplied with a predetermined pump, and fastening means  
20 for use in keeping a length of said tight fitting band in a loop  
having a desired size,

the muscle strength increasing system comprising a pressure  
gauge for measuring the air pressure within said tube,

said compression pressure controller being adapted to  
25 control said compression pressure based on the air pressure within  
said tube that is measured by said pressure gauge.

3. The muscle strength increasing system as claimed in Claim  
1, wherein said compression pressure controller has setting means

which can set the maximum value of said compression pressure at a desired pressure, said setting means being configured to set the maximum value of said compression pressure without exceeding said critical compression pressure.

5

4. A muscle strength increasing system used for developing muscles of at least one of the limbs of a wearer while restricting the blood flow therethrough by means of applying a predetermined compression pressure to said limb, the muscle strength increasing system comprising a muscle strength increasing device having a compressing member for tightening and compressing muscles and a compression pressure controller for controlling said compression pressure,

said compression pressure controller being configured to control said compression pressure so that the time interval during which said compression pressure is applied to the wearer falls within a range that does not exceed a preset critical compression duration.

5. The muscle strength increasing system as claimed in Claim 4, wherein said compression pressure controller has time counting means for measuring time during which said compression pressure is applied,

said compression pressure controller being adapted to reduce said compression pressure when the time measured by the time counting means exceeds a predetermined time interval.

6. The muscle strength increasing system as claimed in Claim 5, wherein said compression pressure controller has setting means

with which said predetermined time interval can be set at a desired time interval, said predetermined time interval that is set by said setting means is determined not to exceed a predetermined setting time interval.

5

7. A muscle strength increasing system used for developing muscles of at least one of the limbs of a wearer while restricting the blood flow therethrough by means of applying a predetermined compression pressure to said limb, the muscle strength increasing system comprising a muscle strength increasing device having a compressing member for tightening and compressing muscles and a compression pressure controller for controlling said compression pressure,

10 said compression pressure controller being for controlling said compression pressure and/or the time interval during which said compression pressure is applied to said limbs.

8. A compression pressure control unit of a muscle strength increasing device for controlling a predetermined compression pressure used for developing muscles of at least one of the limbs of a wearer while restricting the blood flow therethrough by means of applying said compression pressure to said limb, the compression pressure control unit having a compressing member tightening and compressing muscles,

20 the compression pressure control unit controlling said compression pressure so that it does not exceed a preset critical compression pressure.

9. A compression pressure control unit of a muscle strength

increasing device for controlling a predetermined compression pressure used for developing muscles of at least one of the limbs of a wearer while restricting the blood flow therethrough by means of applying said compression pressure to said limb, the compression pressure control unit having a compressing member tightening and  
5 compressing muscles,

the compression pressure control unit controlling said compression pressure so that the time interval during which said compression pressure is applied to the wearer falls within a range  
10 that does not exceed a preset critical compression duration.

10. The compression pressure control unit as claimed in Claim 8, comprising first recording means on which said critical compression pressure is recorded, the compression pressure control unit being for controlling said compression pressure based on said  
15 critical compression pressure recorded on the first recording means,

the compression pressure control unit comprising predetermined first input means for supplying said critical  
20 compression pressure to said first recording means through its operation.

11. The compression pressure control unit as claimed in Claim 10, comprising second recording means on which the maximum value  
25 of said compression pressure is recorded, the compression pressure control unit being for controlling said compression pressure based on the maximum value of said compression pressure recorded on the second recording means,

the compression pressure control unit comprising

predetermined second input means for supplying the maximum value of said compression pressure to said second recording means through its operation,

the maximum value of said compression pressure recorded on  
5 said second recording means being controlled not to exceed said critical compression pressure.

12. The compression pressure control unit as claimed in Claim  
11 comprising a main body having said second recording means,  
10 wherein

said first input means can freely be attached to and removed from said main body.

13. The compression pressure control unit as claimed in Claim  
15 11, comprising authentication means for determining whether or not an input from said first input means is allowed, wherein

the input from said first input means is accepted only when said authentication means performs authentication indicating that the input is permitted.

20

14. The compression pressure control unit as claimed in Claim 13, wherein said authentication means comprises:

an authentication operator for entering data for authentication; and

25 decision means for determining whether the data for authentication received from the authentication operator are valid,

said authentication being made when said authentication means determines that said data for authentication are valid.

15. The compression pressure control unit as claimed in Claim 13, wherein said authentication means comprises:

reading means for reading data for authentication from a  
5 predetermined recording medium; and

decision means for determining whether said data for authentication read by the reading means are valid;

said authentication being made when said authentication means determines that said data for authentication are valid.

10

16. The compression pressure control unit as claimed in Claim 9, comprising third recording means on which said critical compression duration is recorded, the compression pressure control unit being for controlling said compression pressure based on the  
15 critical compression duration recorded on the third recording means,

the compression pressure control unit comprising predetermined third input means for entering said critical compression duration to said third recording means through its  
20 operation.

17. The compression pressure control unit as claimed in Claim 16, comprising fourth recording means on which the maximum value of a time interval during which said compression pressure is applied  
25 to the wearer is recorded, the compression pressure control unit being for controlling said compression pressure based on the maximum value of the time interval during which said compression pressure is applied to the wearer, which is recorded on the fourth recording means,

the compression pressure control unit comprising predetermined fourth input means for entering said maximum value of the time interval during which said compression pressure is applied to the wearer, to said fourth recording means through its operation,

said maximum value of the time interval during which said compression pressure is applied to the wearer, which is recorded on said fourth recording means, being controlled not to exceed said critical compression duration.

10

18. The compression pressure control unit as claimed in Claim 17, comprising a main body having said fourth recording means, wherein

said third input means can freely be attached to and removed from said main body.

15

19. The compression pressure control unit as claimed in Claim 17, comprising authentication means for determining whether or not an input from said third input means is allowed, wherein

the input from said third input means is accepted only when said authentication means performs authentication indicating that the input is permitted.

20

20. The compression pressure control unit as claimed in Claim 19, wherein said authentication means comprises:

25

an authentication operator for entering data for authentication; and

decision means for determining whether the data for authentication received from the authentication operator are

valid,

said authentication being made when said authentication means determines that said data for authentication are valid.

- 5 21. The compression pressure control unit as claimed in Claim 19, wherein said authentication means comprises:

reading means for reading data for authentication from a predetermined recording medium; and

10 decision means for determining whether said data for authentication read by the reading means are valid;

said authentication being made when said authentication means determines that said data for authentication are valid.